UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,546	12/09/2003	Alexander B. Morgan	62227A	4549

109 7590 03/21/2006

THE DOW CHEMICAL COMPANY
INTELLECTUAL PROPERTY SECTION
P. O. BOX 1967
MIDLAND, MI 48641-1967

EXAMINER	
TRAN, THAO T	
ART UNIT	**PAPER NUMBER**
1711	

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/731,546	MORGAN ET AL.	
	Examiner	Art Unit	
	Thao T. Tran	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to the Appeal Brief filed on 01/12/2006.

2. Claims 1 and 3-20 are currently pending in this application.

3. Upon further consideration, the finality of the prior Office action of 4/19/2005 is hereby withdrawn.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. In view of the prior Office action of 4/19/2005, the rejection of claims 1-20, under 35 U.S.C. 103(a) as being unpatentable over Asai et al. (US Pat. 4,639,379) in view of Jeong et al. (US Pat. 6,476,105), has been withdrawn due to further consideration.

6. Claims 1 and 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai et al. (US Pat. 4,639,379) in view of Ishihata et al. (US Pat. 6,362,269).

In regards to claims 1, 3-4, and 8-15, Asai teaches an article, comprising a polymeric substrate containing a flame retardant; wherein the surface of the substrate is subjected to a plasma treatment to form a plasma-polymerized surface film containing an organosilicon compound. The polymeric substrate made of polycarbonates, styrene-acrylonitrile-butadiene copolymer, or a blend thereof (see col. 2, ln. 18-64; col. 3, ln. 3).

Asai does not teach a specific amount of the flame retardant or a specific type of flame retardant.

Ishihata discloses a resin composition comprising polycarbonate and ABS (see abstract; col. 11, ln. 1-7). The resin composition further comprises additives, such as flame retardants (see col. 21, ln. 8). The flame retardants include triphenyl phosphate and resorcinol bis(dixylenyl phosphate) (see col. 24, ln. 8-11).

Ishihata further teaches the flame retardant present in an amount of 0.5-15% or 0.01-2% based on 100% of the resin component. The amount of the flame retardant used differs depending upon the desired degree of flame retardancy (see col. 26, ln. 8-15).

Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the amount of the flame retardant would have been adjusted in order to obtain the desired degree of flame retardancy. It has been known within the skill in the art that too much of a flame retardant would have adversely affected the physical properties of the resin composition, while too little of a flame retardant would not have enhanced the flame retardancy of the resin composition.

With respect to the use of a phosphate flame retardant, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the flame retardant of triphenyl phosphate or resorcinol bis(dixylenyl phosphate), as taught by Ishihata, in the resin composition of Asai, for the purpose of enhancing the degree of flame retardancy, while maintaining the physical and chemical properties of the resin composition.

In regards to claims 5-7 and 17-18, Asai further teaches the substrate is subjected to a surface pretreatment by plasma in the presence of aniline (nitrogen-containing) or nitrogen to form a crosslinked layer (see col. 7, ln. 21-26; col. 10, ln. 6-7).

In regards to claim 16, the Asai combination does not teach the use of the composite as an enclosure for an electronic device as recited in the instant claim. However, it has been known within the skill in the art that laminates comprising a thermoplastic resin substrate with an abrasive and flame resistant coating have been used as covering of these devices. And it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the composite taught by the Asai combination as a protective covering of these device, due to its high weatherability and abrasive and flame resistance.

In regards to claims 19-20, since the Asai combination teaches the same chemical composition of the polymeric composite, the polymeric composite of the references would inherently have the same properties such as flammability test.

Response to Arguments

7. Applicant's arguments with respect to the rejection of the claims as unpatentable over Asai and Jeong have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 9:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thao Tran

tt
March 17, 2006

THAO T. TRAN
PATENT EXAMINER